

## ABSTRACT

A rolling element in a stationary state as surrounded by magnetic bearings is moved until it abuts against a protective bearing, and thereby a mean value of movement spans  $S$  is determined. A machine type is determined based on a fact that the mean value of movement spans varies depending upon the types of machine bodies, and then the setting of control parameters is made. In this manner, a control unit of the magnetic bearing is adapted for multiple types of machine bodies.